



Environment Testing
TestAmerica



ANALYTICAL REPORT

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Laboratory Job ID: 240-111600-1
Client Project/Site: Deer Park Release - ITC

For:
Cardno, Inc
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Crystal Lake, Illinois 60014

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Authorized for release by:
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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Cardno, Inc
Project/Site: Deer Park Release - ITC

Job ID: 240-111600-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Cardno, Inc
Project/Site: Deer Park Release - ITC

Job ID: 240-111600-1

Job ID: 240-111600-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative 240-111600-1

Comments

The 531.1 analysis was performed at Eurofins TestAmerica Savannah. The 8081A_LVI and 8270_LVI analysis were performed at Eurofins TestAmerica Houston Laboratory. The Nonylphenol analysis was performed at Eurofins TestAmerica Sacramento. The Organotins analysis was performed at Eurofins TestAmerica Burlington Laboratory.

Receipt

The sample was received on 4/26/2019 10:15 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.4° C.

GC/MS Semi VOA

Method(s) 8270C: The continuing calibration verification (CCV) associated with batch 600-264464 recovered above the upper control limit for 2,4,5-Trichlorophenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: (CCVIS 600-264464/2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC

Method(s) 531.1: The continuing calibration verification (CCV) associated with batch 680-570621 recovered above the upper control limit for Carbaryl. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 531.1: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 680-570621 recovered outside control limits for the following analyte: Carbaryl. This analyte was biased high in the LCS/LCSD and was not detected in the associated samples; therefore, the data have been reported.

Method(s) 531.1: The following sample failed high for ISTD recovery indicating a good injection. There were no target analytes present and the data has been reported. WW-20190424-002-DAY1 (240-111600-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method(s) 8081A: The continuing calibration verification (CCV) associated with batch 600-264191 recovered above the upper control limit for Toxaphene(28.4%). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: (CCV 600-264191/5).

Method(s) 8081A: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 600-264886 and analytical batch 600-264862 recovered outside control limits for the following analytes: Dicofol. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8081A: Spike compounds were inadvertently omitted during the extraction process for the LCS/LCSD; therefore, LCS/LCSD recoveries are unavailable for preparation batch 600-264886 and analytical batch 600-264862. The associated sample was re-prepared and/or re-analyzed outside holding time. Both sets of data have been reported.

Method(s) 8081A: Spike compounds were inadvertently omitted during the extraction process for the LCS/LCSD; therefore, LCS/LCSD recoveries are unavailable for preparation batch 600-263906 and analytical batch 600-264862. The associated sample was re-prepared and/or re-analyzed outside holding time. Both sets of data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with method Nonylphenols aqueous in preparation batch 320-292810.

Case Narrative

Client: Cardno, Inc
Project/Site: Deer Park Release - ITC

Job ID: 240-111600-1

Job ID: 240-111600-1 (Continued)

Laboratory: Eurofins TestAmerica, Canton (Continued)

Method(s) 3510C: Elevated reporting limits are provided for the following sample due to insufficient sample provided for preparation:
WW-20190424-002-DAY1 (240-111600-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: Cardno, Inc

Project/Site: Deer Park Release - ITC

Job ID: 240-111600-1

Method	Method Description	Protocol	Laboratory
8270C	Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	SW846	TAL HOU
Organotins/GCMS	Organotins (GC/MS)	TAL SOP	TAL BUR
WS-MS-0010	Nonylphenols	TAL SOP	TAL SAC
8081A	Organochlorine Pesticides (GC)	SW846	TAL HOU
531.1	Carbamate Pesticides (HPLC)	EPA	TAL SAV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUR
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL SAC
3510C LVI	Liquid-Liquid Extraction (Separatory Funnel) LVI	SW846	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: Cardno, Inc
Project/Site: Deer Park Release - ITC

Job ID: 240-111600-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-111600-1	WW-20190424-002-DAY1	Water	04/24/19 12:28	04/26/19 10:15	

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

Detection Summary

Client: Cardno, Inc

Project/Site: Deer Park Release - ITC

Job ID: 240-111600-1

Client Sample ID: WW-20190424-002-DAY1

Lab Sample ID: 240-111600-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bisphenol-A	0.00040	J	0.0010	0.00032	mg/L	1		WS-MS-0010	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Client Sample Results

Client: Cardno, Inc

Project/Site: Deer Park Release - ITC

Job ID: 240-111600-1

Client Sample ID: WW-20190424-002-DAY1

Lab Sample ID: 240-111600-1

Matrix: Water

Date Collected: 04/24/19 12:28

Date Received: 04/26/19 10:15

Method: 8270C - Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	0.0014	U	0.010	0.0014	mg/L		04/30/19 11:29	05/07/19 08:54	1
3 & 4 Methylphenol	0.0014	U	0.020	0.0014	mg/L		04/30/19 11:29	05/07/19 08:54	1
2,4,5-Trichlorophenol	0.0042	U	0.010	0.0042	mg/L		04/30/19 11:29	05/07/19 08:54	1
Hexachlorobenzene	0.0033	U	0.010	0.0033	mg/L		04/30/19 11:29	05/07/19 08:54	1
Total Cresols	0.0050	U	0.050	0.0050	mg/L		04/30/19 11:29	05/07/19 08:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	49		19 - 150	04/30/19 11:29	05/07/19 08:54	1
2-Fluorobiphenyl	51		38 - 133	04/30/19 11:29	05/07/19 08:54	1
2-Fluorophenol	35		10 - 130	04/30/19 11:29	05/07/19 08:54	1
Nitrobenzene-d5	49		24 - 150	04/30/19 11:29	05/07/19 08:54	1
Terphenyl-d14	77		35 - 150	04/30/19 11:29	05/07/19 08:54	1
Phenol-d5 (Surr)	32		10 - 130	04/30/19 11:29	05/07/19 08:54	1

Method: Organotins/GCMS - Organotins (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tributyltin	0.000047	U	0.000047	0.000047	mg/L		04/30/19 12:15	05/07/19 14:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tripentyltin	98		15 - 150				04/30/19 12:15	05/07/19 14:03	1

Method: WS-MS-0010 - Nonylphenols

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nonylphenol	0.0016	U	0.0050	0.0016	mg/L		05/07/19 08:11	05/07/19 19:27	1
Bisphenol-A	0.00040	J	0.0010	0.00032	mg/L		05/07/19 08:11	05/07/19 19:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-nonylphenol monoethoxylate (Surr)	60		47 - 138				05/07/19 08:11	05/07/19 19:27	1
para-n-Nonylphenol (Surr)	61		46 - 118				05/07/19 08:11	05/07/19 19:27	1

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.000014	U	0.00011	0.000014	mg/L		04/29/19 13:38	05/02/19 20:19	1
Dieldrin	0.000016	U	0.00023	0.000016	mg/L		04/29/19 13:38	05/02/19 20:19	1
Toxaphene	0.0055	U	0.011	0.0055	mg/L		04/29/19 13:38	05/02/19 20:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	52		36 - 144				04/29/19 13:38	05/02/19 20:19	1
DCB Decachlorobiphenyl	62		36 - 144				04/29/19 13:38	05/13/19 18:17	1
DCB Decachlorobiphenyl	61		36 - 144				05/13/19 11:29	05/13/19 20:36	1
Tetrachloro-m-xylene	63		32 - 143				04/29/19 13:38	05/02/19 20:19	1
Tetrachloro-m-xylene	70		32 - 143				04/29/19 13:38	05/13/19 18:17	1
Tetrachloro-m-xylene	66		32 - 143				05/13/19 11:29	05/13/19 20:36	1

Method: 531.1 - Carbamate Pesticides (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbaryl	0.00025	U *	0.0025	0.00025	mg/L			05/17/19 11:24	1

Eurofins TestAmerica, Canton

Surrogate Summary

Client: Cardno, Inc

Project/Site: Deer Park Release - ITC

Job ID: 240-111600-1

Method: 8270C - Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (19-150)	FBP (38-133)	2FP (10-130)	NBZ (24-150)	TPHL (35-150)	PHL (10-130)
240-111600-1	WW-20190424-002-DAY1	49	51	35	49	77	32
LCS 600-263979/2-A	Lab Control Sample	90	90	72	71	105	60
MB 600-263979/1-A	Method Blank	72	77	54	56	79	45

Surrogate Legend

TBP = 2,4,6-Tribromophenol
 FBP = 2-Fluorobiphenyl
 2FP = 2-Fluorophenol
 NBZ = Nitrobenzene-d5
 TPHL = Terphenyl-d14
 PHL = Phenol-d5 (Surr)

Method: Organotins/GCMS - Organotins (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TPTT (15-150)					
240-111600-1	WW-20190424-002-DAY1	98					
LCS 200-142496/2-A	Lab Control Sample	113					
MB 200-142496/1-A	Method Blank	102					

Surrogate Legend

TPTT = Tripentyltin

Method: WS-MS-0010 - Nonylphenols

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		4NPME (47-138)	4NPH (46-118)				
240-111600-1	WW-20190424-002-DAY1	60	61				
LCS 320-292810/2-A	Lab Control Sample	74	69				
LCSD 320-292810/3-A	Lab Control Sample Dup	71	66				
MB 320-292810/1-A	Method Blank	53	57				

Surrogate Legend

4NPME = 4-nonylphenol monoethoxylate (Surr)
 4NPH = para-n-Nonylphenol (Surr)

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		DCBP1 (36-144)	TCX1 (32-143)				
240-111600-1	WW-20190424-002-DAY1	52	63				
240-111600-1	WW-20190424-002-DAY1	62	70				
240-111600-1	WW-20190424-002-DAY1	61	66				
LB 600-263867/1-D	Method Blank	46	61				
LCS 600-263906/2-A	Lab Control Sample	64	83				
LCS 600-264886/2-A	Lab Control Sample	78	90				

Eurofins TestAmerica, Canton

Surrogate Summary

Client: Cardno, Inc

Job ID: 240-111600-1

Project/Site: Deer Park Release - ITC

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		DCBP1 (36-144)	TCX1 (32-143)	
LCSD 600-263906/3-A	Lab Control Sample Dup	68	84	
LCSD 600-264886/3-A	Lab Control Sample Dup	84	98	
MB 600-263906/1-A	Method Blank	67	115	
MB 600-264886/1-A	Method Blank	64	72	

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

QC Sample Results

Client: Cardno, Inc

Job ID: 240-111600-1

Project/Site: Deer Park Release - ITC

Method: 8270C - Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Lab Sample ID: MB 600-263979/1-A
Matrix: Water**Analysis Batch:** 264320
Client Sample ID: Method Blank
Prep Type: Total/NA**Prep Batch:** 263979

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	0.0014	U	0.010	0.0014	mg/L		04/30/19 11:28	05/03/19 14:17	1
3 & 4 Methylphenol	0.0014	U	0.020	0.0014	mg/L		04/30/19 11:28	05/03/19 14:17	1
2,4,5-Trichlorophenol	0.0042	U	0.010	0.0042	mg/L		04/30/19 11:28	05/03/19 14:17	1
Hexachlorobenzene	0.0033	U	0.010	0.0033	mg/L		04/30/19 11:28	05/03/19 14:17	1
Total Cresols	0.0050	U	0.050	0.0050	mg/L		04/30/19 11:28	05/03/19 14:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac	
2,4,6-Tribromophenol	72		19 - 150		04/30/19 11:28	05/03/19 14:17	1
2-Fluorobiphenyl	77		38 - 133		04/30/19 11:28	05/03/19 14:17	1
2-Fluorophenol	54		10 - 130		04/30/19 11:28	05/03/19 14:17	1
Nitrobenzene-d5	56		24 - 150		04/30/19 11:28	05/03/19 14:17	1
Terphenyl-d14	79		35 - 150		04/30/19 11:28	05/03/19 14:17	1
Phenol-d5 (Surr)	45		10 - 130		04/30/19 11:28	05/03/19 14:17	1

Lab Sample ID: LCS 600-263979/2-A
Matrix: Water**Analysis Batch:** 264320
Client Sample ID: Lab Control Sample
Prep Type: Total/NA**Prep Batch:** 263979

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
2-Methylphenol	0.0400	0.0338		mg/L		84	37 - 130
3 & 4 Methylphenol	0.0400	0.0360		mg/L		90	39 - 130
2,4,5-Trichlorophenol	0.0400	0.0364		mg/L		91	39 - 130
Hexachlorobenzene	0.0400	0.0368		mg/L		92	45 - 130
Total Cresols	0.0800	0.0698		mg/L		87	38 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	90		19 - 150
2-Fluorobiphenyl	90		38 - 133
2-Fluorophenol	72		10 - 130
Nitrobenzene-d5	71		24 - 150
Terphenyl-d14	105		35 - 150
Phenol-d5 (Surr)	60		10 - 130

Method: Organotins/GCMS - Organotins (GC/MS)

Lab Sample ID: MB 200-142496/1-A
Matrix: Water**Analysis Batch:** 142745
Client Sample ID: Method Blank
Prep Type: Total/NA**Prep Batch:** 142496

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tributyltin	0.000045	U	0.000045	0.000045	mg/L		04/30/19 12:15	05/07/19 10:07	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac			
<i>Tripentyltin</i>	102		15 - 150	04/30/19 12:15	05/07/19 10:07	1			

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QC Sample Results

Client: Cardno, Inc

Job ID: 240-111600-1

Project/Site: Deer Park Release - ITC

Method: Organotins/GCMS - Organotins (GC/MS) (Continued)

Lab Sample ID: LCS 200-142496/2-A

Matrix: Water

Analysis Batch: 142745

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 142496

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
Tributyltin	0.000445	0.000486		mg/L	109		30 - 150
Surrogate	LCS %Recovery	LCS Qualifier	Limits				Limits
Tripentyltin	113		15 - 150				

Method: WS-MS-0010 - Nonylphenols

Lab Sample ID: MB 320-292810/1-A

Matrix: Water

Analysis Batch: 293091

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 292810

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nonylphenol	0.0016	U	0.0050	0.0016	mg/L		05/07/19 08:11	05/08/19 10:46	1
Bisphenol-A	0.00032	U	0.0010	0.00032	mg/L		05/07/19 08:11	05/08/19 10:46	1
Surrogate	LCS %Recovery	LCS Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-nonylphenol monoethoxylate (Surr)	53		47 - 138				05/07/19 08:11	05/08/19 10:46	1
para-n-Nonylphenol (Surr)	57		46 - 118				05/07/19 08:11	05/08/19 10:46	1

Lab Sample ID: LCS 320-292810/2-A

Matrix: Water

Analysis Batch: 293015

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 292810

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
Nonylphenol	0.0240	0.0165		mg/L		69	35 - 133
Bisphenol-A	0.00480	0.00345		mg/L		72	42 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				Limits
4-nonylphenol monoethoxylate (Surr)	74		47 - 138				
para-n-Nonylphenol (Surr)	69		46 - 118				

Lab Sample ID: LCSD 320-292810/3-A

Matrix: Water

Analysis Batch: 293015

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 292810

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD
Nonylphenol	0.0240	0.0157		mg/L		65	35 - 133	5
Bisphenol-A	0.00480	0.00338		mg/L		70	42 - 120	2
Surrogate	LCS %Recovery	LCS Qualifier	Limits				Limits	RPD
4-nonylphenol monoethoxylate (Surr)	71		47 - 138					35
para-n-Nonylphenol (Surr)	66		46 - 118					

Eurofins TestAmerica, Canton

QC Sample Results

Client: Cardno, Inc

Project/Site: Deer Park Release - ITC

Job ID: 240-111600-1

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: LB 600-263867/1-D

Matrix: Water

Analysis Batch: 264191

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 263906

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier					Prepared	Analyzed	Dil Fac
Aldrin	0.000060	U	0.00050	0.000060	mg/L		04/29/19 13:38	05/02/19 18:56	1
Dieldrin	0.000070	U	0.0010	0.000070	mg/L		04/29/19 13:38	05/02/19 18:56	1
Toxaphene	0.024	U	0.050	0.024	mg/L		04/29/19 13:38	05/02/19 18:56	1

Surrogate	LB	LB	%Recovery	Qualifier	Limits	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier					Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	46		36 - 144				04/29/19 13:38	05/02/19 18:56	1
Tetrachloro-m-xylene	61		32 - 143				04/29/19 13:38	05/02/19 18:56	1

Lab Sample ID: MB 600-263906/1-A

Matrix: Water

Analysis Batch: 264191

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 263906

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							Prepared	Analyzed	Dil Fac
Aldrin	0.000012	U	0.00010		0.000012	0.000012	mg/L		04/29/19 13:37	05/02/19 17:32	1
Dieldrin	0.000014	U	0.00020		0.000014	0.000014	mg/L		04/29/19 13:37	05/02/19 17:32	1
Toxaphene	0.0049	U	0.010		0.0049	0.0049	mg/L		04/29/19 13:37	05/02/19 17:32	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier					Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	67		36 - 144				04/29/19 13:37	05/02/19 17:32	1
Tetrachloro-m-xylene	115		32 - 143				04/29/19 13:37	05/02/19 17:32	1

Lab Sample ID: LCS 600-263906/2-A

Matrix: Water

Analysis Batch: 264191

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 263906

Analyte	Spike		Result	LCS	LCS	Unit	D	%Rec	%Rec.	
	Added	Added		Qualifier	Unit	D	%Rec	Limits		
Aldrin	0.00100		0.00116		mg/L		116	66 - 150		
Dieldrin	0.00100		0.00110		mg/L		110	63 - 150		

Surrogate	LCS		%Recovery	Qualifier	Limits	D	%Rec.	RPD	
	Result	Qualifier						RPD	Limit
DCB Decachlorobiphenyl	64		36 - 144						
Tetrachloro-m-xylene	83		32 - 143						

Lab Sample ID: LCSD 600-263906/3-A

Matrix: Water

Analysis Batch: 264191

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 263906

Analyte	Spike		Result	LCSD	LCSD	Unit	D	%Rec	%Rec.	
	Added	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aldrin	0.00100		0.00123		mg/L		123	66 - 150	6	20
Dieldrin	0.00100		0.00118		mg/L		118	63 - 150	7	20

Surrogate	LCSD		%Recovery	Qualifier	Limits	D	%Rec.	RPD	
	Result	Qualifier						RPD	Limit
DCB Decachlorobiphenyl	68		36 - 144						
Tetrachloro-m-xylene	84		32 - 143						

QC Sample Results

Client: Cardno, Inc

Job ID: 240-111600-1

Project/Site: Deer Park Release - ITC

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 600-264886/1-A

Matrix: Water

Analysis Batch: 264862

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 264886

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aldrin	0.000012	U	0.000010	0.000012	mg/L		05/13/19 11:28	05/13/19 19:13	1
Dieldrin	0.000014	U	0.000020	0.000014	mg/L		05/13/19 11:28	05/13/19 19:13	1
Toxaphene	0.0049	U	0.010	0.0049	mg/L		05/13/19 11:28	05/13/19 19:13	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	64		64		36 - 144	05/13/19 11:28	05/13/19 19:13	1
Tetrachloro-m-xylene	72		72		32 - 143	05/13/19 11:28	05/13/19 19:13	1

Lab Sample ID: LCS 600-264886/2-A

Matrix: Water

Analysis Batch: 264862

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 264886

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	78		78		36 - 144
Tetrachloro-m-xylene	90		90		32 - 143

Lab Sample ID: LCSD 600-264886/3-A

Matrix: Water

Analysis Batch: 264862

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 264886

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	84		84		36 - 144
Tetrachloro-m-xylene	98		98		32 - 143

Method: 531.1 - Carbamate Pesticides (HPLC)

Lab Sample ID: MB 680-570621/32

Matrix: Water

Analysis Batch: 570621

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Carbaryl	0.00025	U	0.0025		0.0025	0.00025	mg/L		05/17/19 04:24		1

Lab Sample ID: LCS 680-570621/59

Matrix: Water

Analysis Batch: 570621

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec.	Limits
	Added	Result	Qualifier						
Carbaryl	0.0100	0.0153	*	0.0153	*	mg/L	153	80 - 120	

Lab Sample ID: LCSD 680-570621/60

Matrix: Water

Analysis Batch: 570621

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec.	Limits	RPD
	Added	Result	Qualifier							
Carbaryl	0.0100	0.0135	*	0.0135	*	mg/L	135	80 - 120	13	20

Eurofins TestAmerica, Canton

QC Association Summary

Client: Cardno, Inc
Project/Site: Deer Park Release - ITC

Job ID: 240-111600-1

GC/MS Semi VOA

Prep Batch: 142496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-111600-1	WW-20190424-002-DAY1	Total/NA	Water	3510C	
MB 200-142496/1-A	Method Blank	Total/NA	Water	3510C	
LCS 200-142496/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 142745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-111600-1	WW-20190424-002-DAY1	Total/NA	Water	Organotins/GCM S	142496
MB 200-142496/1-A	Method Blank	Total/NA	Water	Organotins/GCM S	142496
LCS 200-142496/2-A	Lab Control Sample	Total/NA	Water	Organotins/GCM S	142496

Prep Batch: 263979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-111600-1	WW-20190424-002-DAY1	Total/NA	Water	3510C LVI	
MB 600-263979/1-A	Method Blank	Total/NA	Water	3510C LVI	
LCS 600-263979/2-A	Lab Control Sample	Total/NA	Water	3510C LVI	

Analysis Batch: 264320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-263979/1-A	Method Blank	Total/NA	Water	8270C	263979
LCS 600-263979/2-A	Lab Control Sample	Total/NA	Water	8270C	263979

Analysis Batch: 264464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-111600-1	WW-20190424-002-DAY1	Total/NA	Water	8270C	263979

Prep Batch: 292810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-111600-1	WW-20190424-002-DAY1	Total/NA	Water	3510C	
MB 320-292810/1-A	Method Blank	Total/NA	Water	3510C	
LCS 320-292810/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 320-292810/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 293015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-111600-1	WW-20190424-002-DAY1	Total/NA	Water	WS-MS-0010	292810
LCS 320-292810/2-A	Lab Control Sample	Total/NA	Water	WS-MS-0010	292810
LCSD 320-292810/3-A	Lab Control Sample Dup	Total/NA	Water	WS-MS-0010	292810

Analysis Batch: 293091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-292810/1-A	Method Blank	Total/NA	Water	WS-MS-0010	292810

GC Semi VOA

Leach Batch: 263867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 600-263867/1-D	Method Blank	Total/NA	Water	1311	

QC Association Summary

Client: Cardno, Inc
Project/Site: Deer Park Release - ITC

Job ID: 240-111600-1

GC Semi VOA

Prep Batch: 263906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-111600-1	WW-20190424-002-DAY1	Total/NA	Water	3510C LVI	
LB 600-263867/1-D	Method Blank	Total/NA	Water	3510C LVI	263867
MB 600-263906/1-A	Method Blank	Total/NA	Water	3510C LVI	
LCS 600-263906/2-A	Lab Control Sample	Total/NA	Water	3510C LVI	
LCSD 600-263906/3-A	Lab Control Sample Dup	Total/NA	Water	3510C LVI	

Analysis Batch: 264191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-111600-1	WW-20190424-002-DAY1	Total/NA	Water	8081A	263906
LB 600-263867/1-D	Method Blank	Total/NA	Water	8081A	263906
MB 600-263906/1-A	Method Blank	Total/NA	Water	8081A	263906
LCS 600-263906/2-A	Lab Control Sample	Total/NA	Water	8081A	263906
LCSD 600-263906/3-A	Lab Control Sample Dup	Total/NA	Water	8081A	263906

Analysis Batch: 264862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-111600-1	WW-20190424-002-DAY1	Total/NA	Water	8081A	263906
240-111600-1	WW-20190424-002-DAY1	Total/NA	Water	8081A	264886
MB 600-264886/1-A	Method Blank	Total/NA	Water	8081A	264886
LCS 600-264886/2-A	Lab Control Sample	Total/NA	Water	8081A	264886
LCSD 600-264886/3-A	Lab Control Sample Dup	Total/NA	Water	8081A	264886

Prep Batch: 264886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-111600-1	WW-20190424-002-DAY1	Total/NA	Water	3510C LVI	
MB 600-264886/1-A	Method Blank	Total/NA	Water	3510C LVI	
LCS 600-264886/2-A	Lab Control Sample	Total/NA	Water	3510C LVI	
LCSD 600-264886/3-A	Lab Control Sample Dup	Total/NA	Water	3510C LVI	

HPLC/IC

Analysis Batch: 570621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-111600-1	WW-20190424-002-DAY1	Total/NA	Water	531.1	
MB 680-570621/32	Method Blank	Total/NA	Water	531.1	
LCS 680-570621/59	Lab Control Sample	Total/NA	Water	531.1	
LCSD 680-570621/60	Lab Control Sample Dup	Total/NA	Water	531.1	

Lab Chronicle

Client: Cardno, Inc
Project/Site: Deer Park Release - ITC

Job ID: 240-111600-1

Client Sample ID: WW-20190424-002-DAY1

Lab Sample ID: 240-111600-1

Matrix: Water

Date Collected: 04/24/19 12:28

Date Received: 04/26/19 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C LVI			263979	04/30/19 11:29	MRA	TAL HOU
Total/NA	Analysis	8270C		1	264464	05/07/19 08:54	TTD	TAL HOU
Total/NA	Prep	3510C			142496	04/30/19 12:15	CSB	TAL BUR
Total/NA	Analysis	Organotins/GCMS		1	142745	05/07/19 14:03	A1B	TAL BUR
Total/NA	Prep	3510C			292810	05/07/19 08:11	SJC	TAL SAC
Total/NA	Analysis	WS-MS-0010		1	293015	05/07/19 19:27	M1A	TAL SAC
Total/NA	Prep	3510C LVI			263906	04/29/19 13:38	LER	TAL HOU
Total/NA	Analysis	8081A		1	264191	05/02/19 20:19	JAL	TAL HOU
Total/NA	Prep	3510C LVI			263906	04/29/19 13:38	LER	TAL HOU
Total/NA	Analysis	8081A		1	264862	05/13/19 18:17	JAL	TAL HOU
Total/NA	Prep	3510C LVI			264886	05/13/19 11:29	LER	TAL HOU
Total/NA	Analysis	8081A		1	264862	05/13/19 20:36	JAL	TAL HOU
Total/NA	Analysis	531.1		1	570621	05/17/19 11:24	UI	TAL SAV

Laboratory References:

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Cardno, Inc

Job ID: 240-111600-1

Project/Site: Deer Park Release - ITC

Laboratory: Eurofins TestAmerica, Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2927	02-23-20
Connecticut	State Program	1	PH-0590	12-31-19
Florida	NELAP	4	E87225	06-30-19 *
Illinois	NELAP	5	200004	07-31-19 *
Iowa	State Program	7	421	06-01-21
Kansas	NELAP	7	E-10336	04-30-20
Kentucky (UST)	State Program	4	58	02-23-20
Kentucky (WW)	State Program	4	98016	12-31-19
Minnesota	NELAP	5	039-999-348	12-31-19 *
Minnesota (Petrofund)	State Program	1	3506	07-31-19 *
Nevada	State Program	9	OH00048	07-31-19
New Jersey	NELAP	2	OH001	06-30-19 *
New York	NELAP	2	10975	03-31-20
Ohio VAP	State Program	5	CL0024	09-06-19 *
Oregon	NELAP	10	4062	02-23-20
Pennsylvania	NELAP	3	68-00340	08-31-19 *
Texas	NELAP	6	T104704517-18-10	08-31-19 *
USDA	Federal		P330-16-00404	12-28-19
Virginia	NELAP	3	460175	09-14-19 *
Washington	State Program	10	C971	01-12-20 *
West Virginia DEP	State Program	3	210	12-31-19

Laboratory: Eurofins TestAmerica, Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
ANAB	DoD		L2336	02-25-20
Connecticut	State Program	1	PH-0751	09-30-19
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-01-20
Florida	NELAP	4	E87467	06-30-19 *
Minnesota	NELAP	5	050-999-436	12-31-19
New Hampshire	NELAP	1	2006	12-18-19
New Jersey	NELAP	2	VT972	06-30-19 *
New York	NELAP	2	10391	04-01-20
Pennsylvania	NELAP	3	68-00489	04-30-20
Rhode Island	State Program	1	LAO00298	12-30-19
US Fish & Wildlife	Federal		LE-058448-0	07-31-19
USDA	Federal		P330-11-00093	07-24-20
Vermont	State Program	1	VT-4000	12-31-19
Virginia	NELAP	3	460209	12-14-19

Laboratory: Eurofins TestAmerica, Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Louisiana	NELAP	6	01967	06-30-19
Oklahoma	State Program	6	2018-052	08-31-19
Texas	NELAP	6	T104704223-18-23	10-31-19
USDA	Federal		P330-18-00130	04-30-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Cardno, Inc

Project/Site: Deer Park Release - ITC

Job ID: 240-111600-1

Laboratory: Eurofins TestAmerica, Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-020	01-20-21
ANAB	DoD		L2468	01-20-21
ANAB	DOE		L2468.01	01-20-21
Arizona	State Program	9	AZ0708	08-11-19
Arkansas DEQ	State Program	6	88-0691	06-17-19
California	State Program	9	2897	01-31-20
Colorado	State Program	8	CA00044	08-31-19
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-19
Georgia	State Program	4	N/A	01-28-19 *
Hawaii	State Program	9	N/A	01-29-20
Illinois	NELAP	5	200060	03-17-19 *
Kansas	NELAP	7	E-10375	10-31-19
Louisiana	NELAP	6	30612	06-30-19
Maine	State Program	1	CA0004	04-14-20
Michigan	State Program	5	9947	01-31-20
Nevada	State Program	9	CA00044	07-31-19
New Hampshire	NELAP	1	2997	04-20-20
New Jersey	NELAP	2	CA005	06-30-19
New York	NELAP	2	11666	04-01-20
Oregon	NELAP	10	4040	01-29-20
Pennsylvania	NELAP	3	68-01272	03-31-20
Texas	NELAP	6	T104704399	05-31-19
US Fish & Wildlife	Federal		LE148388-0	07-31-19
USDA	Federal		P330-18-00239	01-17-21
USEPA UCMR	Federal	1	CA00044	12-31-20
Utah	NELAP	8	CA00044	02-29-20
Vermont	State Program	1	VT-4040	04-16-20
Virginia	NELAP	3	460278	03-14-20 *
Washington	State Program	10	C581	05-05-20
West Virginia (DW)	State Program	3	9930C	12-31-19
Wyoming	State Program	8	8TMS-L	01-28-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Canton

Accreditation/Certification Summary

Client: Cardno, Inc

Project/Site: Deer Park Release - ITC

Job ID: 240-111600-1

Laboratory: Eurofins TestAmerica, Savannah

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
	AFCEE		SAVLAB	
Alabama	State Program	4	41450	06-30-19 *
Alaska	State Program	10		06-30-19 *
Alaska (UST)	State Program	10	UST-104	09-22-19
ANAB	DoD		L2463	09-22-19
ANAB	ISO/IEC 17025		L2463.01	09-22-19
Arizona	State Program	9	AZ0808	12-14-19
Arkansas DEQ	State Program	6	88-0692	02-01-20
California	State Program	9	2939	06-30-19 *
Colorado	State Program	8	N/A	12-31-19
Connecticut	State Program	1	PH-0161	03-31-21
Florida	NELAP	4	E87052	06-30-19 *
GA Dept. of Agriculture	State Program	4	N/A	06-12-19
Georgia	State Program	4	N/A	06-30-19 *
Georgia	State Program	4	803	06-30-19 *
Guam	State Program	9	15-005r	04-17-20
Hawaii	State Program	9	N/A	06-30-19
Illinois	NELAP	5	200022	11-30-19
Indiana	State Program	5	N/A	06-30-19 *
Iowa	State Program	7	353	06-30-19 *
Kentucky (DW)	State Program	4	90084	12-31-19
Kentucky (UST)	State Program	4	18	06-30-19
Kentucky (WW)	State Program	4	90084	12-31-19
Louisiana	NELAP	6	30690	06-30-19 *
Louisiana (DW)	NELAP	6	LA160019	12-31-19
Maine	State Program	1	GA00006	09-25-20
Maryland	State Program	3	250	12-31-19
Massachusetts	State Program	1	M-GA006	06-30-19 *
Michigan	State Program	5	9925	06-30-19
Mississippi	State Program	4	N/A	06-30-19 *
Nebraska	State Program	7	TestAmerica-Savannah	06-30-19 *
New Jersey	NELAP	2	GA769	06-30-19 *
New Mexico	State Program	6	N/A	06-30-19 *
New York	NELAP	2	10842	04-01-20
North Carolina (DW)	State Program	4	13701	07-31-19
North Carolina (WW/SW)	State Program	4	269	12-31-19
Oklahoma	State Program	6	9984	08-31-19
Pennsylvania	NELAP	3	68-00474	06-30-19 *
Puerto Rico	State Program	2	GA00006	01-01-20
South Carolina	State Program	4	98001	06-30-19 *
Tennessee	State Program	4	TN02961	06-30-19 *
Texas	NELAP	6	T104704185-16-9	11-30-19
Texas (DW)	State Program	1	T104704185	06-30-19 *
US Fish & Wildlife	Federal		LE058448-0	07-31-19
Virginia	NELAP	3	460161	06-14-19 *
Washington	State Program	10	C805	06-10-19 *
West Virginia (DW)	State Program	3	9950C	12-31-19
West Virginia DEP	State Program	3	094	06-30-19 *
Wisconsin	State Program	5	999819810	08-31-19
Wyoming	State Program	8	8TMS-L	06-30-16 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Canton

Chain of Custody Record

Client Information		Sampler: <u>Stephanie Healy</u>	Lab PM:	Carrier Tracking No(s):	COC No:													
Client Contact: <u>Art Saunders</u>	Phone: <u>518-727-5074</u>	E-Mail:	Page:															
Company: <u>Cardno</u>					Page 1 of 1													
Address: <u>121 Continental Dr, Suite 308</u>	Analysis Requested				Job #:													
City: <u>Newark</u>					Preservation Codes:													
State, Zip: <u>DE, 19713</u>					A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2SO3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify)													
Phone: <u>6010-220-3957</u>					Other:													
Email: <u>art.saunders@cardno.com</u>																		
Project Name: <u>Deer Park Release ITL</u>																		
Site: <u>Deer Park, TX</u>																		
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MSM/MSD (Yes or No)	Total Number of containers	Special Instructions/Note:										
WW-20190424-002-DAY1	4/24/19	1228	C WW	W	N	X X X X X X X												
 240-111600 Chain of Custody																		
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months													
Deliverable Requested: I, II, III, IV, Other (specify) <u>III</u>					Special Instructions/QC Requirements:													
Empty Kit Relinquished by:		Date:	Time:		Method of Shipment:													
Relinquished by: <u>Jon Stine / Art S.</u>		Date/Time: <u>4/24/19 1637</u>	Company: <u>Cardno</u>		Received by: <u>Jon Stine</u>	Date/Time: <u>4/26/19 1015</u>	Company: <u>Cardno</u>											
Relinquished by:		Date/Time:	Company:		Received by:	Date/Time:	Company:											
Relinquished by:		Date/Time:	Company:		Received by:	Date/Time:	Company:											
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:														
				15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

TestAmerica Canton Sample Receipt Form/Narrative

Login # : 111600

Canton Facility

Client <u>Care No</u>	Site Name <u>4/26/19</u>				Cooler unpacked by: <u>SL</u>
Cooler Received on <u>4/26/19</u>	Opened on <u>4/26/19</u>				
FedEx: 1 st Grd <u>Exp</u>	UPS FAS Clipper	Client Drop Off	TestAmerica Courier	Other	

Receipt After-hours: Drop-off Date/Time

Storage Location

TestAmerica Cooler # <u>TA</u>	Foam Box	Client Cooler	Box	Other
Packing material used: <u>Bubble Wrap</u> <u>Foam</u> <u>Plastic Bag</u>	None	Other		
COOLANT: <u>Wet Ice</u> <u>Blue Ice</u> <u>Dry Ice</u> <u>Water</u>	None			

1. Cooler temperature upon receipt See Multiple Cooler Form
 IR GUN# IR-8 (CF -0.2 °C) Observed Cooler Temp. 4.6 °C Corrected Cooler Temp. 4.4 °C
 IR GUN #36 (CF +0.7°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
 -Were the seals on the outside of the cooler(s) signed & dated?
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?
 -Were tamper/custody seals intact and uncompromised?
3. Shippers' packing slip attached to the cooler(s)? Yes No
 4. Did custody papers accompany the sample(s)? Yes No
 5. Were the custody papers relinquished & signed in the appropriate place? Yes No
 6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
 7. Did all bottles arrive in good condition (Unbroken)? Yes No
 8. Could all bottle labels be reconciled with the COC? Yes No
 9. Were correct bottle(s) used for the test(s) indicated? Yes No
 10. Sufficient quantity received to perform indicated analyses? Yes No
 11. Are these work share samples? Yes No
 If yes, Questions 12-16 have been checked at the originating laboratory.

12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC984738
 13. Were VOAs on the COC? Yes No
 14. Were air bubbles >6 mm in any VOA vials? Larger than this.
 15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____
 16. Was a LL Hg or Me Hg trip blank present? _____

Tests that are not checked for pH by Receiving:
 VOAs
 Oil and Grease
 TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: TC

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
 Sample(s) _____ were received in a broken container.
 Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
 Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



240-111600 Field Sheet

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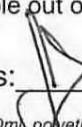
14

15

Job: _____

Tracking # 442234461997 SO / PO / FO / 2-Day / SAT / Ground / UPS / Courier /
Drop Off / GSO / OnTrac / Goldstreak / USPS / Other _____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Notes: <hr/> <hr/>	Therm. ID: AK-2 / <u>AK-3</u> / AK-5 / AK-7 / HACCP / Other _____ (-1.0°C)																																																																										
	Ice <input checked="" type="checkbox"/>	Wet <input checked="" type="checkbox"/>	Gel <input checked="" type="checkbox"/> Other _____																																																																								
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	Sample Custody Seal: <u>—</u>																																																																										
	Cooler ID: <u>—</u>																																																																										
	Temp: Observed <u>7.7°C</u> Corrected <u>7.7°C</u>																																																																										
	From: Temp Blank <input type="checkbox"/> Sample <input checked="" type="checkbox"/> NCM Filed: Yes <input type="checkbox"/> No <input type="checkbox"/>																																																																										
	<table><thead><tr><th></th><th>Yes</th><th>No</th><th>NA</th></tr></thead><tbody><tr><td>Perchlorate has headspace(1/3 bottle¹)?</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr><tr><td>Alkalinity has no headspace?</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr><tr><td>CoC is complete w/o discrepancies?</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Samples received within holding time?</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Sample preservatives verified?</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr><tr><td>Cooler compromised/tampered with?</td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Samples compromised/tampered with?</td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Samples w/o discrepancies?</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Sample containers have legible labels?</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Containers are not broken or leaking?</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Sample date/times are provided.</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Appropriate containers are used?</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Sample bottles are completely filled?</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Zero headspace?²</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr><tr><td>Multiphasic samples are not present?</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Sample temp OK?</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Sample out of temp?</td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr></tbody></table>				Yes	No	NA	Perchlorate has headspace(1/3 bottle ¹)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Alkalinity has no headspace?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CoC is complete w/o discrepancies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample preservatives verified?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Cooler compromised/tampered with?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Samples compromised/tampered with?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Samples w/o discrepancies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample containers have legible labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Containers are not broken or leaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample date/times are provided.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appropriate containers are used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample bottles are completely filled?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Zero headspace? ²	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Multiphasic samples are not present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample temp OK?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample out of temp?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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